

Outfall 002A – TCE Exceedance in January 2017 and Plan of Action

The TCE concentration in the sample from outfall 002A (groundwater infiltration) was 11 ppb this month, compared to a permit limit of 5 ppb.

The sampling was done under dry weather conditions, as required by the permit, and under these conditions the all groundwater infiltration is typically collected and treated in the GWTP before reaching Outfall 002a. However, due to the high water table this month groundwater infiltration was exceeding the dry weather capture system flow rate (approximately 40 gpm) at the time of sample collection.

The reasons for this conclusion are as follows:

1. The vault transfer pumps were engaged during sample collection and were pumping at approximately 40 gpm throughout the sampling period and the flow measured at 002A was approximately equal (within range of error) to 002B. However, the float switch just downgradient of the retaining baffle in CB-87R was engaged indicating that excess flow was going over the baffle at the 40 gpm capture rate.

The following corrective actions were performed and/or are planned:

1. We are currently in the process of increasing the recovery capacity of the overburden system and have installed a second transfer pump to work in tandem with the existing transfer pump. This is being done in an effort to reduce the amount of overburden infiltration into the storm sewer which will thus reduce the dry weather flow and allow us to maintain dry conditions on the downstream side of the baffle at a 40 gpm pumping rate. We are incrementally increasing the vacuum on the overburden header piping (to prevent surging) and over the past two weeks have seen an increase of approximately 10 gpm. A balancing effort of the overburden capture system is planned for this week in order to increase capture at the points closest to the storm sewer network.

Note: Operating the dry weather flow capture system at a flow rate greater than 40 gpm greatly increases the risk of total system shutdown due to fouling from organics (leaves, twigs, etc.) and bacterial iron sludge. For this reason our corrective action is focused on reducing the amount of overburden that infiltrates into the storm sewer as this will result in a long-term solution for a recurring problem during high groundwater conditions.